REMARKS

Claims 1-7, 9-15 and 20-25 are currently pending in the subject application, and are presently under consideration. Claims 1-7, 9-15 and 20-25 are rejected. Claims 1 and 6 have been amended. Claims 9-15 and 20-25 have been cancelled. New claims 26-38 have been added. Favorable reconsideration of the application is requested in view of the amendments and comments herein.

I. Amendment to the Specification

Paragraph 0029 of the specification has been amended to state explicitly some matter clearly shown in Fig. 1 and expressed elsewhere. Specifically, the specification has been amended to state that the Faraday cage 24 illustrated in Fig. 1is a metallic enclosure mounted to the back of the control unit 12. The mounting of the Faraday cage is clear in Fig. 1, and there is support elsewhere in the specification that the Faraday cage can be metallic in several references to an aluminum enclosure. It is thus respectfully submitted that the amendment to paragraph 0029 does not include new matter, and the entrance of this amendment is respectfully requested.

II. Independent Claims

A. Rejection of Claim 1 Under 35 U.S.C. §102(b)/ 35 U.S.C. §103(a)

Claim 1 stands rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,148,261 to Obradovich, et al. ("Obradovich") Claim 1 has been amended to include at least the subject matter of claims 9 and 10, which were rejected as unpatentable over Obradovich in view of in view of U.S. Publication No. 2003/0017646A to Sridharan, et al. ("Sridharan"). Accordingly, the following discussion will address the patentability of claim over Obradovich and Sridharan.

Claim 1 recites a tablet computer assembly that includes a global positioning system module that produces location information associated with the position of the tablet computer assembly and an L-band transceiver that broadcasts the location information to a satellite relay

and receives location information from at least one portable communications device via the satellite relay. A processing unit that provides messages to the L-band transceiver and updates a display associated with the tablet computer assembly according the received location information and the location information produced at the global positioning system module. A Faraday cage encloses the L-band transceiver to reduce electromagnetic interference. The Faraday cage includes a back plate associated with the processing unit and is configured as a heat sink to draw heat from the L-band transceiver away from the processing unit.

It is respectfully submitted that claim 1, as amended, is clearly novel over Obradovich. The Office Action states on page 7, in paragraph 21 that Obradovich does not disclose the recited Faraday cage, so it is respectfully requested that the rejection of claim 1 under 35 U.S.C. §102(b) be withdrawn.

It is further submitted that claim 1 defines patentable invention over Sridharan and Obradovich, as Sridharan and Obradovich, taken alone or in combination, fail to teach or suggest a Faraday cage, mounted to the back of a processing unit that encloses an L-band transceiver and a global positioning module to reduce electromagnetic interference at the global positioning module and the transceiver and to draw heat from the L-band transceiver away from the processing unit. In the discussion of claims 9 and 10, the Office Action notes that Obradovich fails to disclose the recited Faraday cage. The Examiner cites the soldier ball/via system of Sridharan providing this teaching, specifically paragraphs 7 and 9. Sridharan discloses a ball grid array package that includes an external Faraday cage formed around an integrated circuit. The Examiner states that it would be obvious to one of ordinary skill in the art at the time the invention was made because it would reduce the electromagnetic interference that can occur when large numbers of circuits are placed in close proximity.

Applicant's representative disagrees with this asserted motivation. Obradovich does not discuss its chip arrangement or any efforts taken to shield the transmitter and processing equipment from mutual or external interference. There is no indication in Obradovich that the disclosed communications device contains the densely packed chips that characterize the ball-grid arrays of Sridharan, and thus is unlikely that the cited motivation applies to the Obradovich

system. Thus, there is no suggestion or motivation in Sridharan to modify Obradovich to include a Faraday cage that surrounds a L-band transceiver that is configured operate as a heat sink to draw heat from the transceiver away from the processing unit, as recited in claim 1.

Additionally, Sridharan is non-analogous art in that one skilled in the art would not look to ball-grid arrays to solve the high power heat problem and frequency sensitivity of the tablet computer assembly with satellite transmission capabilities. See, for example, *Wang Laboratories, Inc. v. Toshiba Corp.*, 993 F.2d 858, 26 USPQ2d 1767 (Fed. Cir. 1993) (Patent claims were directed to single in-line memory modules (SIMMs) for installation on a printed circuit motherboard for use in personal computers. Reference to a SIMM for an industrial controller was not necessarily in the same field of endeavor as the claimed subject matter merely because it related to memories. Reference was found to be in a different field of endeavor because it involved memory circuits in which modules of varying sizes may be added or replaced, whereas the claimed invention involved compact modular memories. Furthermore, since memory modules of the claims at issue were intended for personal computers and used dynamic random-access-memories, whereas reference SIMM was developed for use in large industrial machine controllers and only taught the use of static random- access-memories or read-only-memories, the finding that the reference was nonanalogous was supported by substantial evidence.)

It is further submitted that Sridharan does not teach a Faraday cage that is a metallic enclosure substantially encompassing a transceiver module and a global positioning system, such that even if one skilled in the art were lead to incorporate the internal Faraday cages disclosed in Sridharan into the communications system of Obradovich, the resulting system would not provide the claimed invention. To begin with, it is unlikely that the resulting Faraday cage would enclose the L-band transceiver, as require in claim 1. While Obradovich does not disclose much of its internal design, it is reasonable to expect that any transceiver located in the Obradovich system is not located in a single integrated circuit package. For example, as can be seen in FIG. 2, the RF transceiver module 104 is made up of at least three separate boards 106, 118, and 120, each presumably comprising several integrated circuit packages. If each package

were to be provided with its own Faraday cage in accordance with the teachings of Sridharan, no one Faraday cage would enclose the L-band transceiver, as recited in claim 1. It is thus respectfully submitted that claim 1 defines patentable invention over Obradovich and Sridharan, and the withdrawal of this rejection is respectfully requested.

B. New Claim 29

Claim 29 recites a portable communications system including a global positioning system module that produces location information associated with the position of the tablet computer assembly. A transceiver broadcasts the location information directly to a satellite relay and receives location information from at least one portable communications device via the satellite relay. A tablet computer is operatively connected to the transceiver and the global positioning module through at least one aperture in an associated back plate of the tablet computer. The tablet computer provides messages to the transceiver and updates a display associated with the tablet computer assembly according the received location information and the location information produced at the global positioning system module. A Faraday cage encloses the transceiver and the global positioning module to reduce electromagnetic interference. The Faraday cage includes the back plate of the processing unit, which forms one wall of the Fraday cage, and a metallic enclosure that encloses the transceiver and the global positioning system module and forms a back of the portable communications system. The Faraday cage is configured as a heat sink to draw heat from the L-band transceiver away from the processing unit. It is respectfully submitted that claim 26 defines patentable invention over the cited art.

Claim 29 contains elements similar to claim 1 and claims 9 and 10, so of the art cited in the Office Action, the most likely references to be deemed relevant are Obradovich and Sridharan. It is respectfully submitted that Claim 26 defines patentable invention over Obradovich and Sridharan for at least the reasons provided in the discussion of claim 1. It is further submitted that the teachings of Sridharan, even if one skilled in the art would be led to apply them to Obradovich, which is disputed, would not lead one skilled in the art to produce a Faraday cage, configured to act as a heat sink for the transmitter, that incorporates the back plate

of a tablet computer. The package-level shielding taught by Sridharan, at best, would lead a skilled artisan to incorporate similar protection into the boards comprising the transmitter. Nothing in either reference, however, suggests a larger scale Faraday cage/heat sink that would incorporate a back plane of a tablet computer. It is thus respectfully submitted that claim 29 defines patentable invention over the cited art, and the allowance of claim 29 is respectfully requested. It is respectfully submitted that each and every element of claim 34 is well supported in the specification, and that no new matter has been entered through the addition of this claim.

C. New Claim 34

Claim 34 recites a tablet computer assembly that includes a global positioning system module that produces location information associated with the position of the tablet computer assembly and an L-band transceiver that broadcasts the location information to a satellite relay and receives location information from at least one portable communications device via the satellite relay. A processing unit provides messages to the L-band transceiver and updates a display associated with the tablet computer assembly according the received location information and the location information produced at the global positioning system module. A single, detachable antenna is operatively connected to the L-band transceiver and the global positioning module to facilitate the transmission and reception of messages by the L-band transceiver and the global positioning module. It is respectfully submitted that each and every element of claim 34 is well supported in the specification, and that no new matter has been entered through the addition of this claim.

Claim 34 contains elements similar to claim 1 and claim 6, so of the art cited in the Office Action, the most likely references to be deemed relevant are Obradovich, U.S. Publication No. 2003/0032426 to Gilbert ("Gilbert"), and U.S. Patent No. 6,542,117 to Broughton ("Broughton"). It is respectfully submitted that Claim 34 defines patentable invention over Obradovich, Gilbert, and Broughton, as one skilled in the art, presented with these references, would not be led to design a tablet computer assembly having an antenna shared by an L-band transceiver and a GPS system.

The Office Action notes that Obradovich and Broughton do not teach a single antenna that is shared by an L-band transmitter and a GPS receiver, relying on Gilbert to provide this teaching. It is respectfully submitted, however, that the teachings of Gilbert, even taken in combination with Obradovich and Broughton, would not lead one skilled in the art to utilize a single shared antenna for an L-band transceiver and a GPS system. To begin with, it is respectfully submitted that one skilled in the art would not look to a vehicle-based system, namely the aircraft communications system of Gilbert, to modify the portable communication system of Obradovich. With the space available in an aircraft, the Gilbert system can utilize various mechanisms, such as spatial separation or heavy shielding, that are not available for a portable communications system. *See* Gilbert, ¶0053.

Further, Gilbert specifically teaches away from the claimed system. While Gilbert does state the GPS antenna 54 can be shared with an antenna that transmits packet data to a satellite, it specifically states that the GPS antenna "may be any L-band antenna used for data or voice reception (*e.g.*, where no L-band transmission occurs on that antenna)." Gilbert ¶0053. Accordingly, at best, Gilbert provides an ambiguous teaching to one skilled in the art, and in fact, warns one skilled in the art away from allowing a GPS system to share an antenna with an L-band transmitter. Since claim 34 recites an L-band transceiver that transmits location data, it is respectfully submitted that one skilled in the art, guided by Gilbert, would not seek to create the system recited in claim 34. It is thus respectfully submitted that claim 34 defines patentable invention over the cited art, and the allowance of claim 29 is respectfully requsted.

III. Rejection of Claims 2-7

A. Rejection of Claims 2 and 5 Under 35 U.S.C. §102(b)

Claims 2 and 5 stand rejected under 35 U.S.C. §102(b) as being anticipated by Obradovich. Claims 2 and 5 depend from claim 1, which is novel over Obradovich as described above. Withdrawal of this rejection is thus respectfully requested.

B. Rejection of Claim 3 Under 35 U.S.C. §103(a)

Claim 3 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Obradovich. Claim 3 depends from claim 1, and is allowable for at least the reasons provided in the discussion of claim 1. Withdrawal of this rejection is thus respectfully requested.

C. Rejection of Claim 4 Under 35 U.S.C. §103(a)

Claim 1 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Obradovich, as applied to claim 1, and further in view of Bielby. Bielby does not remedy the deficiencies of Obradovich and Sridharan as discussed with respect to claim 1. As claim 4 depends from claim 1, it is allowable over the cited art for at least the reasons provided in the discussion of claim 1. Withdrawal of this rejection is thus respectfully requested.

D. Rejection of Claim 6 Under 35 U.S.C. §103(a)

Claim 6 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Obradovich, as applied to claim 1, and further in view of U.S. Patent No. 6,542,117 to Broughton ("Broughton"), and in further view of U.S. Publication No. 2003/0032426 to Gilbert, et al. ("Gilbert"). Broughton and Gilbert do not remedy the deficiencies of Obradovich and Sridharan as discussed with respect to claim 1. As claim 6 depends from claim 1, it is allowable over the cited art for at least the reasons provided in the discussion of claim 1. Further, as discussed in regards to new claim 34, one skilled in the art would not seek to use a common, detachable

antenna for an L-band transmitter and a GPS system based on the teachings of Gilbert. Withdrawal of the rejection of claim 6 is thus respectfully requested.

E. Rejection of Claim 7 Under 35 U.S.C. §103(a)

Claim 7 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Obradovich, as applied to claim 1, and further in view of Broughton, and in further view of Gilbert, as applied to claim 6, and further in view of U.S. Publication No. 2005/0162334 to Saunders, et al. ("Saunders"). Claim 7 depends from claim 1 through claim 6, and is thus allowable for at least the reasons given in the discussion of these claims. Withdrawal of this rejection is thus respectfully requested.

IV. New Claims 26-28, 30-33, and 35-38

New claims 26-28, 30-33, and 35-38 have been added to emphasize certain patentable features of the subject application. Claims 26-28 depend from claim 1, and are allowable over the cited art for at least the reasons given in the discussion of claim 1. Claims 30-33 depend from claim 29, and are allowable over the cited art for at least the reasons given in the discussion of claim 29. Claims 35-38 depend from claim 34, and are allowable over the cited art for at least the reasons given in the discussion of claim 34. It is respectfully submitted that each and every element of claims 26-28, 30-33, and 35-38 is well supported in the specification, and that no new matter has been entered through the addition of these claims. It is thus respectfully submitted that claims 26-28, 30-33, and 35-38 define patentable invention over the cited art, and the allowance of these claims is respectfully requested.

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CONCLUSION

In view of the foregoing remarks, Applicant respectfully submits that the present application is in condition for allowance. Applicant respectfully requests reconsideration of this application and that the application be passed to issue.

Please charge any deficiency or credit any overpayment in the fees for this amendment to our Deposit Account No. 20-0090.

Respectfully submitted,

Date 8/2/07

Christopher P. Harris
Registration No. 43,660

CUSTOMER NO.: 26,294

TAROLLI, SUNDHEIM, COVELL, & TUMMINO L.L.P.
1300 EAST NINTH STREET, SUITE 1700
CLEVELAND, OHIO 44114
Phone: (216) 621-2234
Fax: (216) 621-4072